(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 February 2005 (03.02.2005)

PCT

(10) International Publication Number
WO 2005/010727 A2

(51) International Patent Classification[7]: G06F

(21) International Application Number: PCT/US2004/023932

(22) International Filing Date: 23 July 2004 (23.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/489,454 23 July 2003 (23.07.2003) US

(71) Applicant *(for all designated States except US)*: **PRAEDEA SOLUTIONS, INC.** [US/US]; Suite 1008, 131 Varick Street, New York, NY 10013 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **GRAF, James, A.** [US/US]; Suite 1008, 131 Varick Street, New York, NY 10013 (US). **KOROTEYEV, Vladimir, A.** [US/US]; #3A West, 8801 Shore Road, Brooklyn, NY 11209 (US). **MIKHAYLOV, Eduard, Y.** [US/US]; 108-28 65th Road, Forest Hills, NY 11375 (US). **BRICKER, Elliot, I.** [US/US]; #8C, 711 Amsterdam Avenue, New York, NY 10025 (US). **LEVY, Benjamin, D., A.** [FR/US]; 375 Faxon Avenue, San Francisco, CA 94112 (US). **WONG, Augustinus, Y.** [US/US]; 99 Sussex Road, Tenafly, NJ 07670 (US).

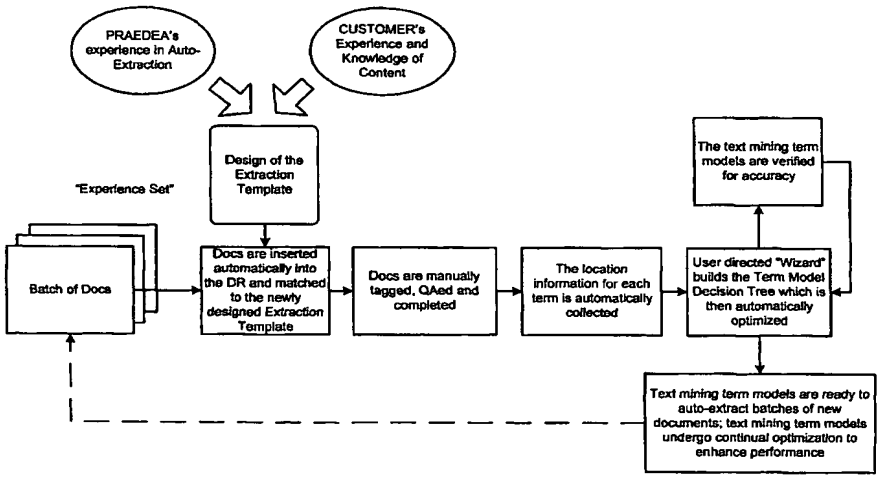
(74) Agent: **FORREST, Peter**; Gray, Plant, Mooty, Mooty & Bennett, P.A., P.O. Box 2906, Minneapolis, MN 55402-0906 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: EXTRACTING DATA FROM SEMI-STRUCTURED TEXT DOCUMENTS



(57) Abstract: The invention is a process, system, and workflow for extracting and warehousing data from semi-structured documents in any language. This includes, but is not limited to, one or more of methods for: the automatic building of text mining term models; the optimization or evolution of such text mining term models; the implementation of document specific (or company specific) memory; and the tying or linking of the extracted data, or metadata, once placed in a target electronic document, to the machine readable, underlying source document, thus providing verification and provenance. The process preferably incorporates a wizard-based method for producing pattern recognition text mining term models to extract data from text. The invention also includes a system, method and workflow for handling a subsequent document of similar design and structure, specifically the automatic extraction of target elements and addition of the same to a database. No previously defined rules or other rigid location specifying criteria regarding a particular document type need be expressed to mine this data.

WO 2005/010727 A2

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Declaration under Rule 4.17:

— *of inventorship (Rule 4.17(iv)) for US only*

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.